

Title (en)  
Wiring board and manufacturing method of wiring board

Title (de)  
Leiterplatte und Verfahren zu deren Herstellung

Title (fr)  
Panneau à circuit et son procédé de fabrication

Publication  
**EP 1729552 A2 20061206 (EN)**

Application  
**EP 06011529 A 20060602**

Priority  
• JP 2005163673 A 20050603  
• JP 2005293806 A 20051006  
• JP 2006087569 A 20060328

Abstract (en)  
A wiring board comprising: a core board including a core body and a ceramic sub-core which is accommodated in a sub-core accommodation space that is a through-hole that communicates with major surfaces of the core body or a recess having an opening in a first major surface of the core body; and wiring laminates each formed by resin insulating layers and conductor layers laminated on each of major surfaces of the core board, wherein: a groove-filling portion which fills a gap between the core body and the ceramic sub-core is integral with a lowest resin insulating layer of the first-major-surface-side wiring laminate; and via conductors that are connected to respective conductor patterns formed on a first major surface of the ceramic sub-core penetrate through the lowest resin insulating layer.

IPC 8 full level  
**H05K 1/14** (2006.01)

CPC (source: EP US)  
**H01L 21/4857** (2013.01 - EP US); **H01L 21/568** (2013.01 - EP US); **H01L 21/6835** (2013.01 - EP US); **H01L 23/49822** (2013.01 - EP US); **H01L 23/50** (2013.01 - EP US); **H01L 24/81** (2013.01 - EP US); **H01L 24/97** (2013.01 - EP US); **H05K 1/0231** (2013.01 - EP US); **H01L 2224/16235** (2013.01 - EP US); **H01L 2224/13111** (2013.01 - EP US); **H01L 2224/16225** (2013.01 - EP US); **H01L 2224/16235** (2013.01 - EP US); **H01L 2224/81801** (2013.01 - EP US); **H01L 2224/97** (2013.01 - EP US); **H01L 2924/00011** (2013.01 - EP US); **H01L 2924/00014** (2013.01 - EP US); **H01L 2924/01005** (2013.01 - EP US); **H01L 2924/01006** (2013.01 - EP US); **H01L 2924/01013** (2013.01 - EP US); **H01L 2924/01019** (2013.01 - EP US); **H01L 2924/01024** (2013.01 - EP US); **H01L 2924/01027** (2013.01 - EP US); **H01L 2924/01029** (2013.01 - EP US); **H01L 2924/0103** (2013.01 - EP US); **H01L 2924/01033** (2013.01 - EP US); **H01L 2924/01041** (2013.01 - EP US); **H01L 2924/01046** (2013.01 - EP US); **H01L 2924/01047** (2013.01 - EP US); **H01L 2924/0105** (2013.01 - EP US); **H01L 2924/01051** (2013.01 - EP US); **H01L 2924/01055** (2013.01 - EP US); **H01L 2924/01059** (2013.01 - EP US); **H01L 2924/01075** (2013.01 - EP US); **H01L 2924/01078** (2013.01 - EP US); **H01L 2924/01079** (2013.01 - EP US); **H01L 2924/01082** (2013.01 - EP US); **H01L 2924/014** (2013.01 - EP US); **H01L 2924/09701** (2013.01 - EP US); **H01L 2924/12042** (2013.01 - EP US); **H01L 2924/12044** (2013.01 - EP US); **H01L 2924/14** (2013.01 - EP US); **H01L 2924/15311** (2013.01 - EP US); **H01L 2924/15787** (2013.01 - EP US); **H01L 2924/19041** (2013.01 - EP US); **H01L 2924/30107** (2013.01 - EP US); **H01L 2924/351** (2013.01 - EP US); **H05K 1/112** (2013.01 - EP US); **H05K 1/142** (2013.01 - EP US); **H05K 1/162** (2013.01 - EP US); **H05K 3/4602** (2013.01 - EP US); **H05K 2201/096** (2013.01 - EP US); **H05K 2201/10674** (2013.01 - EP US); **H05K 2201/10712** (2013.01 - EP US); **Y10T 29/49117** (2015.01 - EP US); **Y10T 29/49124** (2015.01 - EP US); **Y10T 29/49126** (2015.01 - EP US); **Y10T 29/49128** (2015.01 - EP US); **Y10T 29/4913** (2015.01 - EP US); **Y10T 29/49155** (2015.01 - EP US); **Y10T 29/49165** (2015.01 - EP US)

Citation (applicant)  
• JP 2005039243 A 20050210 - NGK SPARK PLUG CO  
• JP 2005163673 A 20050623 - DENSO CORP  
• JP 2005293806 A 20051020 - VICTOR COMPANY OF JAPAN  
• JP 2006087569 A 20060406 - SAMY KK

Citation (examination)  
EP 1137332 A1 20010926 - IBIDEN CO LTD [JP]

Citation (third parties)  
Third party :  
• US 6724638 B1 20040420 - INAGAKI YASUSHI [JP], et al  
• US 5875100 A 19990223 - YAMASHITA KOJI [JP]  
• US 6010768 A 20000104 - YASUE TOSHIHIKO [JP], et al  
• JP 2002204045 A 20020719 - NGK SPARK PLUG CO  
• JP 2004327624 A 20041118 - SHINKO ELECTRIC IND CO

Cited by  
CN108235597A; US8020288B2; WO2008141898A3

Designated contracting state (EPC)  
DE FR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1729552 A2 20061206**; **EP 1729552 A3 20090107**; TW 200731893 A 20070816; TW I396481 B 20130511; US 2006272853 A1 20061207; US 2010139090 A1 20100610; US 7696442 B2 20100413; US 8863378 B2 20141021

DOCDB simple family (application)  
**EP 06011529 A 20060602**; TW 95119500 A 20060602; US 44528806 A 20060602; US 70669510 A 20100216